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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,640	08/30/2001	Wesley C. Hand JR.	EMPIR-042PUS	9427

		EXAMINER
7590	06/07/2004	INGBERG, TODD D

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ART UNIT	PAPER NUMBER
2124	

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/943,640	HAND ET AL.
	Examiner	Art Unit	
	Todd Ingberg	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _25 March 2003_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-12_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-12_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _30 August 2001_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All   b)☐ Some * c)☐ None of:

　　　　1.☐ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _3/25/2003_.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claims 1 – 12 have been examined.

Information Disclosure Statement

1.   The Information Disclosure Statement of April 1, 2003 has been considered.

Priority

2.   No official claim to priority has been made in the record. The PCT Priority date is

August 20, 2001 and PCT filing date is August 29, 2002. Any change would effect the

Bibliographic Data Sheet, an update would be made within the PTO.

Drawings

3.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show every

feature of the invention specified in the claims. Therefore, the subject matter in claims 1 – 12

must be shown or the feature(s) canceled from the claim(s). The rejection under 35 USC 112

First paragraph below explains the details of what is missing. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office

action to avoid abandonment of the application. The objection to the drawings will not be held

in abeyance.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

5.   Claims 1 – 12 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure

which is not enabling. The details on how in the testing tool for an IVR system support the key

functionality

A. on page 3 of the Specification, "As requirements change or new features are added, the test

generation software should ensure that regression test scripts can be rebuilt in minutes

guaranteeing that are application elements won't conflict with existing features." ,

B. on page 4 with the test developers create automated tests simply by diagramming an

application call flow using a set of standard and/or custom icons."

C. Figure 1 the details of the icons in the figures are indiscernible even with the description in

the Specification.

D. on page 4 "By describing the potential alternative behavior of the application within the call

flow diagrams, the tests generated are able to accommodate the dynamic behavior and

distinguish between acceptable and unacceptable performance." It is unclear and not depicted if

the Applicant is stating alternative behavior can flow on non paths

E. The Applicant has not clearly and concisely described how *non deterministic* behavior is

determined. The Examiner in the next section has tried to overcome this through interpretation.

, critical or essential to the practice of the invention, but not included in the claim(s) is not

enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

The eight pages (7 ½) of Specification and one figure read like a high level wish list not like an

invention that has been reduced to practice and in the possession of the Applicant nor does it

provide enough support to qualify as a teaching for one of ordinary skill in the art to reduce the

high level view to practice. A patent is granted to those who provide a reference that enables one

of ordinary skill in the art to reduce to practice the disclosed invention. More is missing than

present in the instant application. This Specification is not deemed enabled under the written

description requirement of 35 U.S.C.§ 112 First paragraph.

Applicant's Use of Terms and Interpretation

6.   The following are the definitions from "The Authoritative IEEE Dictionary of IEEE

Standard Terms seventh Edition", page 296

deterministic Pertaining to a process, model. or variable whose
outcome. result, or value does not depend on chance.(C) 610.3-1989w

deterministic model A model in which the results are determined through known relationships
among the states and events, a-id in which a given input will always produce the same output: for
example, a model depicting a known chemical reaction. (C) 610.3-1989w

The Applicant has a testing tool for Interactive Voice Response (IVR) systems. The

application uses the term non deterministic. One of ordinary skill in the art would interpret this to

mean the IVR system has the ability to produce results that are not deterministic. In basic words

an X is input and Y is the result, regardless of the intended result. In another input X is input and

a value other than Y is the result. That is an example of a non deterministic outcome. Software

that fails to produce the intended result but fails in the same manner repeatedly is not non

deterministic. Classic situation that lead to non deterministic results are concurrent systems that

had a shared data store and do not properly lock the data store between multiple readers and

writers. It is unclear how the IVR system fits a system that leads to true non deterministic results.

It appears to the Examiner the errors of the IVR system are in fact deterministic and the

specification fails to provide sufficient detail on the intended environment that would lead to the

ability to produce a non deterministic result. However, it is the visual test tool itself that allows

the tester to enter the non deterministic values. This would test the components ability to perform

test such as range and types of tolerance. It is the input via the visual test tool that introduces the

non deterministic values. This is not unlike the well known ability for debuggers to allow

programmers to change the value of a variable (see Beginning Visual C++ 5, Ivor Horton,

published March 19, 1997, page 137) while testing code in a debugger.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8.   Claims 1-4, 6-10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by

Template Software Process Template, Using the WFT Development Environment, copyright

1998, Chapters 1 - 3 and 9. (Referred to as **WFT**).

Claim 1
WFT anticipates a method of providing a test tool for generating test scripts comprising the
steps of: providing test code for testing deterministic behavior of an application; and providing
test code for testing non-deterministic behavior within said application by providing test code for
each of one or more acceptable alternate behaviors associated with said non-deterministic
behavior.
Examiner's Response
WFT is a graphical environment where the environment is modeled (pages 3-3 to 3-13). The
model is established using Chapters 1 – 3. Chapter 3 is specific about setting up the flows (pages
3-19 to 3-20, 3-25, 3-31) between different Applications (ROLES) and the many different type
of routing rules (pages 3-31 to 3-33). Alternative routing is handled by the use of rules and
ambiguous routing using rules (pages 3-31 to 3-33). Chapter 9 teaches the simulator for testing
the model (pages 9-1 to 9-3) and considered the RULES as per above and configuration
variations (Fig 9-4, page 9-14).

Claim 2
The method of claim 1 wherein said step of providing test code for testing one or more
acceptable alternate behaviors is done graphically.
Examiner's Response

In addition to the RULES of claim one also note the page 3-3 teaches junction and match attribute which are visually depicted in figure 3-1 on page 3-5.

Claim 3
The method of claim 2 wherein said step of providing test code for testing one or more acceptable alternative behaviors comprises a graphical interface wherein icons represent said acceptable alternate behaviors.
Examiner's Response
The Applications (ROLES) are icons. The routing is between the different Applications in the graphical environment as disclosed in claims 1 and 2.

Claim 4
The method of claim 3 further comprising the step of using arrows to graphically represent the paths to icons representing said acceptable alternate behaviors.
Examiner's Response
As per claims 1 and 2.

Claim 6
The method of claim 1 wherein said step of providing test code for testing one or more acceptable alternate behaviors is provided separately and is referenced by said test code.
Examiner's Response
The model of claims 1 is run in the simulator as per claim 1.

Claim 7
WFT anticipates a computer program product comprising a computer usable medium having computer readable code thereon comprising: instructions for generating test code for testing deterministic behavior of an application; and instructions for generating test code for testing of non-deterministic behavior by testing one or more acceptable alternative behaviors associated with said non deterministic behavior.
Examiner's Response
See the rejection for claim 1.

Claim 8
The computer program product of claim 7 wherein said test code for testing one or more acceptable alternate behaviors is provided through a graphical interface.
Examiner's Response
See the rejection for claim 2.

Claim 9
The computer program product of claim 8 wherein said test code for testing one or more acceptable alternative behaviors is utilized by a graphical interface wherein icons represent said acceptable alternate behaviors.
Examiner's Response
See the rejection for claim 3.

Claim 10

The computer program product of claim of claim 8 wherein arrows are used to graphically represent the paths to icons representing said acceptable alternate behaviors.

Examiner's Response

See the rejection for claim 4.

Claim 12

The computer program product of claim 7 wherein said test code for testing one or more acceptable alternate behaviors is provided as a separate entity and is referenced by said test code.

Examiner's Response

The explanation of flows in claim 1 describes the ability to control routing between the different Applications (ROLES) in the workflow system. The Simulator of Chapter 9 takes the graphical representation and provides the testing environment also explained in claim 1.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Template Software Process Template, Using the WFT Development Environment, copyright

1998, Chapters 1 - 3 and 9. (Referred to as **WFT**) in view of USPN 6,321,198 **Hank** et al filed

February 23, 1999.

Examiner's Response for Claims 5 and 11

WFT teaches describing a system in a graphical illustration and running the code generated in a simulator to test the system but it does not explicitly teach the solution being modeled and tested to be an IVR system. It is Hank that specifically teaches an IVR system with IVR development tools (Hank, col 2, lines 35 – 40, "… the designer is capable of conducting a simulation on the design so as to test and confirm its effectiveness using a novel DA before implementation".), therefore it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of WFT and Hank to model and test IVR systems because simulating systems prior to deploying them makes them more reliable.

Claim 5

The method of claim 1 wherein said tool is used for testing Interactive Voice Response (IVR) applications.

Claim 11
The computer program product of claim 7 wherein said application comprises an Interactive Voice Response (IVR) application.

Correspondence Information

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to **Todd Ingberg** whose telephone number is (703) 305-9775. The

examiner can normally be reached during the following hours:

Monday	Tuesday	Wednesday	Thursday	Friday
6:15 – 1:30	6:15- 3:45	6:15 – 4:45	6:15-3:45	6:15-130

This schedule began December 1, 2003 and is subject to change.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, **Kakali Chaki** can be reached on (703) 305-9662. Please, note that as of August 4,

2003 the **FAX number** changed for the organization where this application or proceeding is

assigned is **(703) 872-9306**.

Also, be advised the United States Patent Office **new address** is
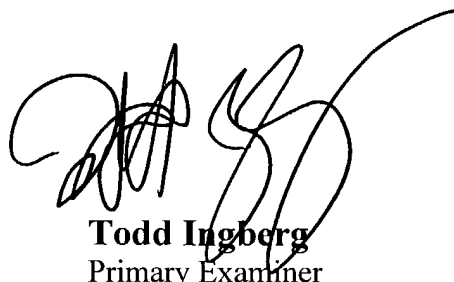
Post Office Box 1450

Alexandria, Virginia 22313-1450

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-9700.

Todd Ingberg
Primary Examiner
Art Unit 2124
May 29, 2004